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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/744,989	08/24/2001	Keiko Tsuganezawa	P20637	1288
7055	7590	02/05/2004	EXAMINER	
GREENBLUM & BERNSTEIN, P.L.C. 1950 ROLAND CLARKE PLACE RESTON, VA 20191			ROMEO, DAVID S	
			ART UNIT	PAPER NUMBER

1647

DATE MAILED: 02/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/744,989	TSUGANEZAWA, KEIKO	
	Examiner	Art Unit	
	David S Romeo	1647	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 October 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) 4 and 9-11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>0106,0201,0206</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The preliminary amendment filed 08/24/2001 has been entered. Claims 1-11 are pending.

5 Applicant's election with traverse of group I, claims 1-3, 5-8, to the extent that they are drawn to a polypeptide comprising an amino acid sequence at least 95% identical to the amino acid sequence of SEQ ID NO: 1, in the paper filed 10/23/2003 is acknowledged. The traversal is on the ground(s) that the claims have unity of invention because the claimed sequences are analogous to claims directed to a process adapted for
10 the manufacture of the claimed polypeptide of groups I-III; that the requirement does not indicate how claim 1 is considered to be anticipated or obvious; that the examiner cannot simply rely on an international search report to prove unpatentability, and, therefore, the restriction requirement is without appropriate basis; and, finally, that there is no undue burden to examine each of Applicant's claims. This is not found persuasive because in
15 order for the inventions of groups I-IX to have unity of invention it is necessary that the inventive concept be a contribution over the prior art. However, the international search report filed with the present application indicates that groups I-IX cannot be considered novel or cannot be considered to involve an inventive concept. Therefore, the inventions of groups I and II do not fulfill the requirements for unity of invention. Moreover,
20 polynucleotides, polypeptides, and antibodies do not share a common structural feature and each functions dissimilarly. The examiner is not relying at all upon the international search report to prove unpatentability. Rather the examiner relies upon the international search report for the purposes of determining unity of invention. The international search

Art Unit: 1647

report indicates that the inventive concept does not make a contribution over the prior art.

Applicant has offered no evidence to rebut this conclusion. Finally, restriction was required under 35 U.S.C. 121 and 372, and search burden is not germane to a restriction under these circumstances.

5 The requirement is still deemed proper and is therefore made FINAL.

 Claims 4, 9-11 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Claims 1-3, 5-8 are withdrawn from further consideration pursuant to 37
10 CFR 1.142(b), to the extent that they are drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the paper filed 10/23/2003.

 Claims 1-3, 5-8 are being examined only to the extent they read upon a
15 polypeptide comprising an amino acid sequence at least 95% identical to the amino acid sequence of SEQ ID NO: 1.

Claim Rejections - 35 USC § 102

 The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

20 A person shall be entitled to a patent unless –

 (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

25 Claims 2, 5-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Hirai (JP06293800, cited by Applicants).

Art Unit: 1647

Hirai discloses human epimorphin protein isoform A. Human epimorphin protein isoform A is a protein having 95% or more homology to amino acids 1-262 of the present application's SEQ ID NO: 1, as indicated below:

```
5  AAR66477
   ID AAR66477 standard; Protein; 287 AA.
   XX
   AC AAR66477;
   XX
10  DT 10-AUG-1995 (first entry)
   XX
   DE Human epimorphine protein isoform A.
   XX
   KW Probe; epimorphine; human; mouse; lambda-gt11; expression library;
15  KW monoclonal antibody; isoform; drug; congenital; acquired; E.coli;
   KW epidermal abnormality.
   XX
   OS Homo sapiens.
   XX
20  FH Key Location/Qualifiers
   FT Domain 264..287
   FT /note= "sequence variance in isoform A"
   XX
   PN JP06293800-A.
   XX
25  PD 21-OCT-1994.
   XX
   PF 15-OCT-1992; 92JP-0301581.
   XX
30  PR 15-OCT-1992; 92JP-0301581.
   XX
   PA (BIOM-) BIOMATERIAL KENKYUSHO KK.
   XX
   DR WPI; 1995-009638/02.
35  DR N-PSDB; AAQ75245.
   XX
   PT Human or murine epimorphine - useful for development of drugs to
   PT treat congenital and acquired epidermal form abnormality
   XX
40  PS Claim 7; Page 3; 41pp; Japanese.
   XX
   CC The amino acid sequence of the human epimorphine isoform A. The DNA
   CC sequence was isolated using a probe (AAQ75243) derived from the mouse
   CC epimorphin gene sequence (AAQ75247). The mouse epimorphine gene
45  CC (AAQ75247) was isolated from a lambda-gt11 expression cDNA library using
   CC a monoclonal antibody raised against mouse epimorphine. The mouse gene
   CC sequence was used to isolate isoforms of the mouse gene (AAQ75248-9) and
   CC the gene encoding human epimorphine (AAQ75244) and isoforms
50  CC (AAQ75245-6). The genes were cloned into expression systems for the
   CC production of the protein in E.coli and in animal cells. The epimorphine
   CC can be used in the development of drugs to treat both congenital and
   CC acquired epidermal form abnormality.
   XX
   SQ Sequence 287 AA;

55  Query Match 95.7%; Score 1263; DB 16; Length 287;
   Best Local Similarity 95.0%; Pred. No. 3.3e-95;
   Matches 249; Conservative 4; Mismatches 9; Indels 0; Gaps 0;

60  Qy 1 MRDRLPDLTACRKNDGDTTVVVEKDFHMDFFHQVEEIRNSIAKIAQYVEEVKKNHSII 60
   Db 1 MRDRLPDLTACRKNDGDTTVVVEKDFHMDFFHQVEEIRNSIDKITQYVEEVKKNHSII 60

65  Qy 61 LSAPNPEGKIKEELEDLNKEIKKTANKIRTKLKSIEQSFQDEGNGRTSVELRIRRTQHS 120
   Db 61 LSAPNPEGKIKEELEDLNKEIKKTANKIRAKLKAIEQSFQDESGNRTSVDLRIRRTQHS 120

70  Qy 121 VLSRKFEVEMTEYNEAQTFLFRERSKGRIQRQLEITGKTTTDDLEEMLESNGNPSIFTSDI 180
   Db 121 VLSRKFEVEMAEYNEAQTFLFRERSKGRIQRQLEITGRITTTDDLEEMLESNGKPSIFTSDI 180

75  Qy 181 ISDSQITRQALNEIESRHKDIMKLETSIRELHEMFMDMAMFVETQGEMINNIERNVMNAA 240
   Db 181 ISDSQITRQALNEIESRHKDIMKLETSIRELHEMFMDMAMFVETQGEMINNIERNVMNAT 240

   Qy 241 DYVEHAKEETKKAIKYQSKARR 262
   Db 241 DYVEHAKEETKKAIKYQSKARR 262.
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Art Unit: 1647

The term "protein in which one or more amino acids are substituted, deleted, and/or added in ... the 1st to 262nd amino acids of ... SEQ ID NO: 1 ..., which has 95% or more homology to the ... 1st to 262nd amino acids of ... SEQ ID NO: 1" (claim 6) has been interpreted by the examiner to mean a protein comprising amino acids 1-262 of SEQ

5 ID NO: 1, wherein one or more amino acids are substituted, deleted, and/or added, wherein the protein has 95% or more homology to amino acids 1-262 of SEQ ID NO: 1.

Human epimorphin protein isoform A is a protein having the amino acid sequence set forth in amino acids 1-262 of SEQ ID NO: 1, wherein one or more amino acids are substituted, wherein the protein has 95% or more homology to amino acids 1-262 of SEQ

10 ID NO: 1, as indicated above.

Any and/or all single amino acids or contiguous fragments of amino acids 1-262 of SEQ ID NO: 1 are amino acids 1-262 of SEQ ID NO: 1, wherein one or more amino acids are deleted, because there are no limits on the number of amino acids deleted.

Accordingly, the structure of the claimed polypeptide encompasses any and/or all

15 polypeptides comprising any and/or all single amino acids or contiguous fragments of amino acids 1-262 of SEQ ID NO: 1. Accordingly, human epimorphin protein isoform A is a protein having the amino acid sequence set forth in amino acids 1-262 of SEQ ID NO: 1, wherein one or more amino acids are deleted, wherein the protein has 95% or more homology to amino acids 1-262 of SEQ ID NO: 1. It follows then that human

20 epimorphin protein isoform A is a protein having the amino acid sequence set forth in amino acids 1-262 of SEQ ID NO: 1, wherein one or more amino acids are deleted and added, wherein the protein has 95% or more homology to amino acids 1-262 of SEQ ID NO: 1.

Art Unit: 1647

Human epimorphin protein isoform A is a protein having the amino acid sequence set forth in SEQ ID NO: 1, wherein one or more amino acids are substituted, as indicated below:

```
5  AAR66477
   ID AAR66477 standard; Protein; 287 AA.
   XX
   AC AAR66477;
   XX
10  DT 10-AUG-1995 (first entry)
   XX
   DE Human epimorphine protein isoform A.
   XX
   KW Probe; epimorphine; human; mouse; lambda-gt11; expression library;
15  KW monoclonal antibody; isoform; drug; congenital; acquired; E.coli;
   KW epidermal abnormality.
   XX
   OS Homo sapiens.
   XX
20  FH Key Location/Qualifiers
   FT Domain 264..287
   FT /note= "sequence variance in isoform A"
   XX
   PN JP06293800-A.
   XX
25  PD 21-OCT-1994.
   XX
   PF 15-OCT-1992; 92JP-0301581.
   XX
30  PR 15-OCT-1992; 92JP-0301581.
   XX
   PA (BIOM-) BIOMATERIAL KENKYUSHO KK.
   XX
   DR WPI; 1995-009638/02.
35  DR N-PSDB; AAQ75245.
   XX
   PT Human or murine epimorphine - useful for development of drugs to
   PT treat congenital and acquired epidermal form abnormality
   XX
40  PS Claim 7; Page 3; 41pp; Japanese.
   XX
   CC The amino acid sequence of the human epimorphine isoform A. The DNA
   CC sequence was isolated using a probe (AAQ75243) derived from the mouse
   CC epimorphin gene sequence (AAQ75247). The mouse epimorphine gene
45  CC (AAQ75247) was isolated from a lambda-gt11 expression cDNA library using
   CC a monoclonal antibody raised against mouse epimorphine. The mouse gene
   CC sequence was used to isolate isoforms of the mouse gene (AAQ75248-9) and
   CC the gene encoding human epimorphine (AAQ75244) and isoforms
50  CC (AAQ75245-6). The genes were cloned into expression systems for the
   CC production of the protein in E.coli and in animal cells. The epimorphine
   CC can be used in the development of drugs to treat both congenital and
   CC acquired epidermal form abnormality.
   XX
55  SQ Sequence 287 AA;

   Query Match 95.7%; Score 1372; DB 16; Length 287;
   Best Local Similarity 94.4%; Pred. No. 8.5e-103;
   Matches 271; Conservative 7; Mismatches 9; Indels 0; Gaps 0;

60  QY 1 MRDRLPDLTACRNDDGDTTVVVEKDHFMDDFFHQVEEIRNSIAKIAQYVEEVKKNHSII 60
   Db 1 MRDRLPDLTACRNDDGDTTVVVEKDHFMDDFFHQVEEIRNSIDKITQYVEEVKKNHSII 60

   QY 61 LSAPNPEGIKKELEDLNKEIKKTANKIRTKLKSIEQSFQDEGNGRTSVELRIRRTQHS 120
65  Db 61 LSAPNPEGIKKELEDLNKEIKKTANKIRAKLKAIEQSFQDESGNRTSVDLRIRRTQHS 120

   QY 121 VLSRKFVEVMEYNEAQTFLFRERSKGRIGRQLEITGKTTTDELEEMLESGNPSIFTSDI 180
   Db 121 VLSRKFVEAMAEYNEAQTFLFRERSKGRIGRQLEITGRTTTDELEEMLESGKPSIFTSDI 180

70  QY 181 ISDSQITRQALNEIESRHKDIMKLETSIRELHEMFMDMAMFVETQGEMINNIERNVMNAA 240
   Db 181 ISDSQITRQALNEIESRHKDIMKLETSIRELHEMFMDMAMFVETQGEMINNIERNVMNAT 240

75  QY 241 DYVEHAKEETKKAIKYQSKARRKMMFIIICVIVLLVILGIIILATTLS 287
   Db 241 DYVEHAKEETKKAIKYQSKARRKLMFIIICVIVLLVILGIIILATTLS 287.
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Art Unit: 1647

The transitional term “having” is synonymous with “comprising.” Any and/or all single amino acids or contiguous fragments of SEQ ID NO: 1 are SEQ ID NO: 1, wherein one or more amino acids are deleted, because there are no limits on the number of amino acids deleted. Accordingly, the structure of the claimed polypeptide encompasses any and/or all polypeptides comprising any and/or all single amino acids or contiguous fragments of SEQ ID NO: 1. Accordingly, human epimorphin protein isoform A is a protein having the amino acid sequence set forth in SEQ ID NO: 1, wherein one or more amino acids are deleted.

Products of identical chemical composition cannot have mutually exclusive properties. A chemical composition and its properties are inseparable. Therefore, the properties applicant discloses and/or claims, i.e., “inducing differentiation ... structure” or “promoting hair growth,” are necessarily present in human epimorphin protein isoform A.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 2, 5, 7 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Art Unit: 1647

Claims 5, 7 are directed to or encompass a genus of compounds comprising the amino acid sequence of SEQ ID NO: 1, SEQ ID NO: 3, or SEQ ID NO: 5, wherein one or more amino acids substituted, deleted, or added. There are no limitations on the number of amino acids substituted. The transitional term "having" is synonymous with

5 "comprising." Any and/or all single amino acids or contiguous fragments of SEQ ID NO: 1, SEQ ID NO: 3, or SEQ ID NO: 5 are SEQ ID NO: 1, SEQ ID NO: 3, or SEQ ID NO: 5, wherein one or more amino acids are deleted, because there are no limits on the number of amino acids deleted. Accordingly, the structure of the claimed polypeptide encompasses any and/or all polypeptides comprising any and/or all single amino acids or
10 contiguous fragments of SEQ ID NO: 1, SEQ ID NO: 3, or SEQ ID NO: 5. The specification and claim do not indicate what distinguishing attributes shared by the members of the genus. The specification and claim do not place any limit on the number of amino acid substitutions, deletions, insertions and/or additions that may be made to SEQ ID NO: 1, SEQ ID NO: 3, or SEQ ID NO: 5. Thus, the scope of the claim includes
15 numerous structural variants, and the genus is highly variant because a significant number of structural differences between genus members is permitted. The specification and claim do not provide any guidance as to what changes should be made. Structural features that could distinguish compounds in the genus from others in the protein class are missing from the disclosure. No common structural attributes identify the members
20 of the genus. The general knowledge and level of skill in the art do not supplement the omitted description because specific, not general, guidance is what is needed. Since the disclosure fails to describe the common attributes or characteristics that identify members of the genus, and because the genus is highly variant, SEQ ID NO: 1, SEQ ID NO: 3, or

Art Unit: 1647

SEQ ID NO: 5 alone are insufficient to describe the genus. One of skill in the art would reasonably conclude that the disclosure fails to provide a representative number of species to describe the genus. Thus, applicant was not in possession of the claimed genus.

5 Claim 2 is drawn to polypeptides having at least 95% homology with SEQ ID NO: 1, SEQ ID NO: 3, or SEQ ID NO: 5. The claims do not require that the polypeptide possess any particular biological activity, nor any particular conserved structure, or other disclosed distinguishing feature. Thus, the claims are drawn to a genus of polypeptides that is defined only by sequence identity.

10 To provide adequate written description and evidence of possession of a claimed genus, the specification must provide sufficient distinguishing identifying characteristics of the genus. The factors to be considered include disclosure of complete or partial structure, physical and/or chemical properties, functional characteristics, structure/function correlation, methods of making the claimed product, or any
15 combination thereof. In this case, the only factor present in the claim is a partial structure in the form of a recitation of percent homology. There is not even identification of any particular portion of the structure that must be conserved. Accordingly, in the absence of sufficient recitation of distinguishing identifying characteristics, the specification does not provide adequate written description of the claimed genus.

20 Vas-Cath Inc. v. Mahurkar, 19USPQ2d 1111, clearly states “applicant must convey with reasonable clarity to those skilled in the art that, as of the filing date sought, he or she was in possession of the invention. The invention is, for purposes of the 'written description' inquiry, whatever is now claimed.” (See page 1117.) The specification does

Art Unit: 1647

not “clearly allow persons of ordinary skill in the art to recognize that [he or she] invented what is claimed.” (See Vas-Cath at page 1116). As discussed above, the skilled artisan cannot envision the detailed chemical structure of the encompassed genus of polypeptides, and therefore conception is not achieved until reduction to practice has
5 occurred, regardless of the complexity or simplicity of the method of isolation.

Adequate written description requires more than a mere statement that it is part of the invention and reference to a potential method of isolating it. The compound itself is required. See *Fiers v. Revel*, 25 USPQ2d 1601 at 1606 (CAFC 1993) and *Amgen Inc. v. Chugai Pharmaceutical Co. Ltd.*, 18 USPQ2d 1016.

10 One cannot describe what one has not conceived. See *Fiddes v. Baird*, 30 USPQ2d 1481 at 1483. In *Fiddes*, claims directed to mammalian FGF's were found to be unpatentable due to lack of written description for that broad class. The specification provided only the bovine sequence.

 Therefore, only isolated polypeptides comprising the amino acid sequence set
15 forth in SEQ ID NO: 1, SEQ ID NO: 3, or SEQ ID NO: 5, but not the full breadth of the claim meets the written description provision of 35 U.S.C. §112, first paragraph.

Applicant is reminded that Vas-Cath makes clear that the written description provision of 35 U.S.C. §112 is severable from its enablement provision (see page 1115).

20 The following claims are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Art Unit: 1647

Claims 6 and 8 are indefinite over the recitation of “one or more amino acids are substituted, deleted, and/or added” because it is unclear if:

1. substituted and deleted and added; and
2. substituted or deleted or added

5 are intended, or if:

3. substituted and deleted and added;
4. substituted and deleted or added;
5. substituted or deleted and added; and
6. substituted or deleted or added

10 are intended. The metes and bounds are not clearly set forth.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

15 Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-3, 5-8 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 1-6, as written, do not sufficiently distinguish over proteins as they exist naturally because the claims do not particularly point out any non-naturally occurring differences between the claimed products and the naturally occurring products. In the absence of the hand of man, the naturally occurring products are considered non-statutory subject matter. See *Diamond v. Chakrabarty*, 447 U.S. 303, 206 USPQ 193 (1980). The claims should be amended to indicate the hand of the inventor, e.g., by insertion of “Isolated” or “Purified.” See MPEP 2105.

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Art Unit: 1647

Specification

The amendment filed 08/24/2001 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: In the sequence listing originally filed with the present application amino acid number 68 in SEQ ID NO: 5 is "Gly." In the sequence listing filed 08/24/2001 amino acid number 68 in SEQ ID NO: 5 is "Glu," which is not supported by the original disclosure.

Applicant is required to cancel the new matter in the reply to this Office Action.

Conclusion

No claims are allowable.

ANY INQUIRY CONCERNING THIS COMMUNICATION OR EARLIER COMMUNICATIONS FROM THE EXAMINER SHOULD BE DIRECTED TO DAVID S. ROMEO WHOSE TELEPHONE NUMBER IS (571) 272-0890. THE EXAMINER CAN NORMALLY BE REACHED ON MONDAY THROUGH FRIDAY FROM 7:30 A.M. TO 4:00 P.M. IF ATTEMPTS TO REACH THE EXAMINER BY TELEPHONE ARE UNSUCCESSFUL, THE EXAMINER'S SUPERVISOR, GARY KUNZ, CAN BE REACHED ON (571) 272-0887.

IF SUBMITTING OFFICIAL CORRESPONDENCE BY FAX, APPLICANTS ARE ENCOURAGED TO SUBMIT OFFICIAL CORRESPONDENCE TO THE FOLLOWING TC 1600 BEFORE AND AFTER FINAL RIGHTFAX NUMBERS:

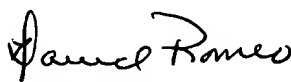
BEFORE FINAL (703) 872-9306

AFTER FINAL (703) 872-9307

CUSTOMERS ARE ALSO ADVISED TO USE CERTIFICATE OF FACSIMILE PROCEDURES WHEN SUBMITTING A REPLY TO A NON-FINAL OR FINAL OFFICE ACTION BY FACSIMILE (SEE 37 CFR 1.6 AND 1.8).

FAXED DRAFT OR INFORMAL COMMUNICATIONS SHOULD BE DIRECTED TO THE EXAMINER AT (571) 273-0891.

ANY INQUIRY OF A GENERAL NATURE OR RELATING TO THE STATUS OF THIS APPLICATION OR PROCEEDING SHOULD BE DIRECTED TO THE GROUP RECEPTIONIST WHOSE TELEPHONE NUMBER IS (703) 308-0196.



DAVID ROMEO
PRIMARY EXAMINER
ART UNIT 1647

DSR
FEBRUARY 2, 2004